
SHAPE:

Students' Notes

This program will draw molecules of simple covalent compounds showing their three-dimensional structure. The molecules will have bonds between atoms marked in red. When the shape is based on a regular polyhedron this will be shown in white. The atoms are shown as circles containing the chemical symbol for the element.

When the program is run you will be presented with the first 18 elements of the periodic table. You should enter the symbols of the elements from which your compound is made, one at a time. The computer checks the symbols and if they are not correct or if they are of elements which aren't shown it will ask you to retype the symbols. You must be careful to enter the correct large and small letters for the symbol and don't forget to press RETURN after each one.

The program only knows about the structures of COVALENT molecules, not ionic lattices or polymers. This means that none of the metals, shown in red, can be used to make a compound. Also some of the possible pairs of yellow or white elements will not be allowed. If you pick structures like this which are too complicated the computer will tell you and let you try another pair of elements. In some cases when more than one simple compound exists you will be able to choose which one you want to see.

When you have entered your choice of elements and the computer has checked them and decided that it can draw the structure for you, it will clear the screen and draw the molecule from three different angles, one after another. Each time it will mark in the lone pairs of electrons, if there are any, and will show the bond angles.

Pressing ESCAPE will give you the choice of starting again or quitting the program. To quit just press 'Q'. Any other key will restart the program.
